		Exploring Aero	nautics	
2009 Science				
		Standard	S	
Oregon Science				
Grade 5				
Activity/Lesson	State	Standards		
Fundamentals of Aeronautics (145-176)	OR	SCI.5.5.3S.1	Based on observations and science principles, identify questions that can be tested, design an experiment or investigation, and identify appropriate tools. Collect and record multiple observations while conducting investigations or experiments to test a scientific question or hypothesis.	
Wings(177-208)	OR	SCI.5.5.4D.2	Design and build a prototype of a proposed engineering solution and identify factors such as cost, safety, appearance, environmental impact, and what will happen if the solution fails.	
Airplane Control(209- 256)	OR	SCI.5.5.4D.2	Design and build a prototype of a proposed engineering solution and identify factors such as cost, safety, appearance, environmental impact, and what will happen if the solution fails.	
Tools of Aeronautics(257-326)	OR	SCI.5.5.4D.1	Using science principles describe a solution to a need or problem given criteria and constraints.	
The Tools of Aeronautics	OR	SCI.5.5.4D.1	Using science principles describe a solution to a need or problem given criteria and constraints.	
Intro to Aeronautics (109-123)	OR	SCI.5.5.3S.3	Explain the reasons why similar investigations may have different results.	
Intro to Aeronautics (109-123)	OR	SCI.5.5.4D.1	Using science principles describe a solution to a need or problem given criteria and constraints. Based on observations and science principles,	
Scientific Method(124-144)	OR	SCI.5.5.3S.1	identify questions that can be tested, design an experiment or investigation, and identify appropriate tools. Collect and record multiple observations while conducting investigations or experiments to test a scientific question or hypothesis.	
Scientific Method(124-144)	OR	SCI.5.5.3S.2	Identify patterns in data that support a reasonable explanation for the results of an investigation or experiment and communicate findings using graphs, charts, maps, models, and oral and written reports.	
Scientific Method(124- 144)	OR	SCI.5.5.3S.3	Explain the reasons why similar investigations may have different results.	
Exploring Aeronautics 2009 Science				
Standards				
Oregon Science				

Grade 6			
Activity/Lesson	State	Standards	
Activity/Losson	Otato	Otaridards	
			Organize and display relevant data, construct an
Fundamentals of			evidence-based explanation of the results of an
Aeronautics (145-176)	OR	SCI.6.6.3S.2	investigation, and communicate the conclusions.
,			Explain why if more than one variable changes
			at the same time in an investigation, the
Fundamentals of			outcome of the investigation may not be clearly
Aeronautics (145-176)	OR	SCI.6.6.3S.3	attributable to any one variable.
			Design, construct, and test a possible solution to
			a defined problem using appropriate tools and
			materials. Evaluate proposed engineering
Wings(177-208)	OR	SCI.6.6.4D.2	design solutions to the defined problem.
			Design, construct, and test a possible solution to
			a defined problem using appropriate tools and
Airplane Control(209-			materials. Evaluate proposed engineering
256)	OR	SCI.6.6.4D.2	design solutions to the defined problem.
			Based on observations and science principles,
			propose questions or hypotheses that can be
			examined through scientific investigation.
			Design and conduct an investigation that uses
			appropriate tools and techniques to collect
Science of Flight	OR	SCI.6.6.3S.1	relevant data.
			Explain why if more than one variable changes
			at the same time in an investigation, the
Intro to Aeronautics			outcome of the investigation may not be clearly
(109-123)	OR	SCI.6.6.3S.3	attributable to any one variable.
			Based on observations and science principles,
			propose questions or hypotheses that can be
			examined through scientific investigation.
Cojentific Method/124			Design and conduct an investigation that uses
Scientific Method(124-	OR	SCI.6.6.3S.1	appropriate tools and techniques to collect relevant data.
144)	UR	SCI.0.0.3S. I	reievani data.
			Organize and display relevant data, construct an
Scientific Method(124-			evidence-based explanation of the results of an
144)	OR	SCI.6.6.3S.2	investigation, and communicate the conclusions.
177)	OIX	001.0.0.30.2	Explain why if more than one variable changes
			at the same time in an investigation, the
Scientific Method(124-			outcome of the investigation may not be clearly
144)	OR	SCI.6.6.3S.3	attributable to any one variable.
111)	OT C	001.0.0.00.0	Design, construct, and test a possible solution to
			a defined problem using appropriate tools and
Scientific Method(124-			materials. Evaluate proposed engineering
144)	OR	SCI.6.6.4D.2	design solutions to the defined problem.
,			J
	1	Exploring Aero	nautics
2009 Science			
Standards			
Oregon Science			
Grade 7			
Activity/Lesson	State	Standards	

			Identify and describe types of motion and forces
Fundamentals of			and relate forces qualitatively to the laws of
Aeronautics (145-176)	OR	SCI.7.7.2P.1	motion and gravitation.
,			
			Organize, display, and analyze relevant data,
			construct an evidence-based explanation of the
Fundamentals of			results of an investigation, and communicate the
Aeronautics (145-176)	OR	SCI.7.7.3S.2	conclusions including possible sources of error.
			Identify and describe types of motion and forces
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		001 = = 00 4	and relate forces qualitatively to the laws of
Wings(177-208)	OR	SCI.7.7.2P.1	motion and gravitation.
			Design, construct, and test a possible solution
			using appropriate tools and materials. Evaluate
\\/inac(177,200\)	OB	SCI.7.7.4D.2	the proposed solutions to identify how design constraints are addressed.
Wings(177-208)	OR	3CI.7.7.4D.2	Identify and describe types of motion and forces
Airplane Control(209-			and relate forces qualitatively to the laws of
256)	OR	SCI.7.7.2P.1	motion and gravitation.
230)	OIX	301.7.7.21.1	Define a problem that addresses a need and
Airplane Control(209-			identify constraints that may be related to
256)	OR	SCI.7.7.4D.1	possible solutions.
			Design, construct, and test a possible solution
			using appropriate tools and materials. Evaluate
Airplane Control(209-			the proposed solutions to identify how design
256)	OR	SCI.7.7.4D.2	constraints are addressed.
			Design, construct, and test a possible solution
			using appropriate tools and materials. Evaluate
Tools of			the proposed solutions to identify how design
Aeronautics(257-326)	OR	SCI.7.7.4D.2	constraints are addressed.
			Identify and describe types of motion and forces
	0.0	001 = = 00 4	and relate forces qualitatively to the laws of
How an Airplane Flies	OR	SCI.7.7.2P.1	motion and gravitation.
			Identify and describe types of motion and forces
The Activity Center	OR	SCI.7.7.2P.1	and relate forces qualitatively to the laws of motion and gravitation.
The Activity Center	UK	3CI.1.1.2P.1	Based on observations and science principles,
			propose questions or hypotheses that can be
			examined through scientific investigation.
			Design and conduct a scientific investigation
			that uses appropriate tools and techniques to
Science of Flight	OR	SCI.7.7.3S.1	collect relevant data.
J. T.			Evaluate the validity of scientific explanations
			and conclusions based on the amount and
Science of Flight	OR	SCI.7.7.3S.3	quality of the evidence cited.
			Define a problem that addresses a need and
			identify constraints that may be related to
Science of Flight	OR	SCI.7.7.4D.1	possible solutions.
			Design, construct, and test a possible solution
			using appropriate tools and materials. Evaluate
Opinion of Films	OD	00177400	the proposed solutions to identify how design
Science of Flight	OR	SCI.7.7.4D.2	constraints are addressed.

Fundamentals of Aeronautics (145-176)	OR	SCI.8.8.3S.2	sources of error. Suggest new investigations based on analysis of results.
			results of a scientific investigation, and communicate the conclusions including possible
			construct an evidence-based explanation of the
Activity/Lesson	State	Standards	Organize, display, and analyze relevant data,
Grade 8	04-4-	040.00 -1 1 -	
Oregon Science			
		Standards	B
		2009 Scien	
		Exploring Aeroi	
144)	OR	SCI.7.7.4D.2	constraints are addressed.
Scientific Method(124-		00177.00	using appropriate tools and materials. Evaluate the proposed solutions to identify how design
144)	OR	SCI.7.7.3S.3	quality of the evidence cited. Design, construct, and test a possible solution
Scientific Method(124-		00177000	Evaluate the validity of scientific explanations and conclusions based on the amount and
Scientific Method(124-144)	OR	SCI.7.7.3S.2	Organize, display, and analyze relevant data, construct an evidence-based explanation of the results of an investigation, and communicate the conclusions including possible sources of error.
Scientific Method(124- 144)	OR	SCI.7.7.3S.1	Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation. Design and conduct a scientific investigation that uses appropriate tools and techniques to collect relevant data.
Scientific Method(124-144)	OR	SCI.7.7.2P.1	and relate forces qualitatively to the laws of motion and gravitation.
(109-123)	OR	SCI.7.7.3S.1	collect relevant data. Identify and describe types of motion and forces
Intro to Aeronautics			Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation. Design and conduct a scientific investigation that uses appropriate tools and techniques to
Intro to Aeronautics (109-123)	OR	SCI.7.7.2P.1	and relate forces qualitatively to the laws of motion and gravitation.
Integrating with Aeronautics	OR	SCI.7.7.3S.2	construct an evidence-based explanation of the results of an investigation, and communicate the conclusions including possible sources of error. Identify and describe types of motion and forces
			Organize, display, and analyze relevant data,
Integrating with Aeronautics	OR	SCI.7.7.2P.1	and relate forces qualitatively to the laws of motion and gravitation.
Into quatica a said-			Identify and describe types of motion and forces

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			Design, construct, and test a proposed
			engineering design solution and collect relevant
			data. Evaluate a proposed design solution in
			terms of design and performance criteria,
			constraints, priorities, and trade-offs. Identify
Wings(177-208)	OR	SCI.8.8.4D.2	possible design improvements.
			Based on observations and science principles,
			propose questions or hypotheses that can be
			examined through scientific investigation.
			Design and conduct a scientific investigation
			that uses appropriate tools, techniques,
			independent and dependent variables, and
Science of Flight	OR	SCI.8.8.3S.1	controls to collect relevant data.
Ocience of Flight	OIX	301.0.0.30.1	Define a problem that addresses a need, and
			using relevant science principles investigate
Colored of Flight	OD	00100404	possible solutions given specified criteria,
Science of Flight	OR	SCI.8.8.4D.1	constraints, priorities, and trade-offs.
			Design, construct, and test a proposed
			engineering design solution and collect relevant
			data. Evaluate a proposed design solution in
			terms of design and performance criteria,
			constraints, priorities, and trade-offs. Identify
Science of Flight	OR	SCI.8.8.4D.2	possible design improvements.
			Define a problem that addresses a need, and
			using relevant science principles investigate
Intro to Aeronautics			possible solutions given specified criteria,
(109-123)	OR	SCI.8.8.4D.1	constraints, priorities, and trade-offs.
			Based on observations and science principles,
			propose questions or hypotheses that can be
			examined through scientific investigation.
			Design and conduct a scientific investigation
			that uses appropriate tools, techniques,
Scientific Method(124-			independent and dependent variables, and
144)	OR	SCI.8.8.3S.1	controls to collect relevant data.
,			Organize, display, and analyze relevant data,
			construct an evidence-based explanation of the
			results of a scientific investigation, and
			communicate the conclusions including possible
Scientific Method(124-			sources of error. Suggest new investigations
,	OR	SCI.8.8.3S.2	
144)	UK	301.0.0.33.2	based on analysis of results.
			Design, construct, and test a proposed
			engineering design solution and collect relevant
			data. Evaluate a proposed design solution in
0			terms of design and performance criteria,
Scientific Method(124-			constraints, priorities, and trade-offs. Identify
144)	OR	SCI.8.8.4D.2	possible design improvements.